

CORRECTIVE MEASURES STUDY/FEASIBILITY STUDY FORMAT

1.0 INTRODUCTION

The purpose of this section is to provide the reader with information that can be used to develop a basic understanding of the unit. This basic information includes the unit's history and the nature and extent of contamination that has resulted from activities at the unit. This section also provides a description of the organization of the documentation of the analysis of alternatives.

1.1 Purpose and Organization of Report

Provides a description of the purpose of the CMS/FS report and of the organization of the report for readers who may be unfamiliar with this type of document. A reference that directs the reader to the more extensive information available in the RFI/RI/BRA report should be included.

1.2 Background Information

Provides a summary of the information available about the unit in order to give the reader a basic understanding of the history of the unit and the nature and extent of contamination that has resulted from activities at the unit.

1.2.1 Unit Description

Provides a brief description of the unit, including its location, size, geography, and environmental setting. Reference Figures 1 and 2 in description.

Figure 1. Location of the Unit Acronym within the Savannah River Site

Figure 2. Layout of the Unit Acronym

1.2.2 Unit History

Provides the reader with a brief description of the activities that have taken place at the unit.

1.2.3 Nature and Extent of Contamination

Provides a discussion of the contamination that has resulted from the unit activities. Reference Figure 3, Schematic Cross Section. This figure should be available from the Scoping Summary.

1.2.4 Constituent Fate and Transport

Provides a discussion of the mobility, in-growth, and decay of the unit contaminants. Reference Figure 4, Conceptual Site Model. May require CSM for each subunit, if applicable.

1.2.5 Baseline Risk Assessment

Provides a summary of the results of the analysis performed and documented in the baseline risk assessment.

Figure 3. Schematic Cross Section of the Unit Acronym

Figure 4. Conceptual Site Model for the Unit Acronym

2.0 IDENTIFICATION AND SCREENING OF TECHNOLOGIES

The purpose of this section is to provide the reader with a description of the remedial technologies that are available and reasonably expected to be suitable for use at the unit. Note that this section will be significantly streamlined for focused CMS/FS reports.

2.1 Introduction

Provides an introduction to the reader of the type of technologies that have been identified for consideration in the CMS/FS.

2.2 Remedial Action Objectives

This section provides a description of the range of objectives that will be considered. The following sections address the concerns for each medium of interest. Reference table of potential ARARs (Table 1). The table should include a specific citation, a synopsis of the requirement, and how it is considered in the CMS/FS.

2.2.1 Contaminants of Interest

Provides a list and description of the contaminants that are being considered for remedial action. Reference table of COCs (Table 2) (for each subunit, if applicable).

2.2.2 Allowable Exposure Based on Risk Assessment

Provides a summary of the regulatory guidelines governing the development of risk-based contaminant levels.

Table 1. Summary of the Potential ARARs

Table 2. Summary of the COCs for the Unit Acronym

2.2.3 Development of Remediation Goals

Provides a list of the remediation goals for the unit. Reference table of RGOs (Table 3) (for each subunit if applicable).

2.3 General Response Actions

Provides a discussion of the actions that could be used to address contaminants at the unit. For each medium of interest, a description of the estimate of the area or volume to which treatment, containment, or exposure technologies may be applied.

2.4 Identification of Screening of Technology Types and Process Options

Provides a description of the universe of potentially applicable technology types and process options.

2.4.1 Identification and Screening of Technologies

Provides a discussion of the technology types that are suitable for use at the unit as well as a discussion of the viable process options. Reference the technology screening table (Table 4.)

2.4.2 Evaluation of Technologies and Selection of Representative Technologies

Provides an evaluation of how reasonable the use of the technologies will be at the site using the broad categories of effectiveness, implementability, and cost as criteria. Describes the technologies that have been selected to represent the suitable technology types.

Table 3. Summary of the Unit Acronym RGOs

Table 4. Summary of the Screening of Technologies

3.0 DEVELOPMENT AND SCREENING OF ALTERNATIVES

The purpose of this section is to provide the reader with a description of the range of alternatives under consideration and the documentation of the evaluation of each alternative using broad categories of effectiveness, implementability, and cost as criteria. Note that this section will be significantly streamlined for focused CMS/FS reports.

Present worth costs should include a statement listing the basis for those costs. The discount rate (2.1% for 1 to 3 years, 2.8% for 4 to 5 years, 3.0% for 6 to 7 years, 3.1% for 8 to 10 years, and 3.9% for 11 years or longer) and the length of time used for O&M costs must be stated. Use the actual expected length of time in the calculations. If the costs are expected to continue beyond 30 years; but, the time is indefinite use 200 years.

3.1 Development of Alternatives

Provides a description of the alternatives developed by assembling combinations of technologies and the media to which they apply.

3.2 Screening of Alternatives

Provides a description of the alternatives (Table 5) and evaluates them for use at the unit in question.

3.2.1 Introduction

Provides any relevant introductory information.

Table 5. Summary of the Screening of Alternatives

3.2.2 *Alternative 1*

3.2.2.1 Description

Provides a description of the alternative

3.2.2.2 Evaluation

Provides an evaluation of how reasonable the use of the alternative will be for the unit.

3.2.3 *Alternative 2*

3.2.3.1 Description

Repeat from above for each alternative developed.

3.2.3.2 Evaluation

Repeat from above for each alternative developed.

4.0 DETAILED ANALYSIS OF ALTERNATIVES

The purpose of this section is to provide the reader with a discussion of the detailed analyses and evaluations performed in order to evaluate each alternative.

4.1 Introduction

Provides any introductory information needed.

4.2 Individual Analysis of Alternatives

Provides a detailed analysis of each alternative for each of the following evaluation criteria:

- Overall protection of human health and the environment
- Compliance with ARARs
- Long-term effectiveness and permanence
- Reduction of toxicity, mobility, or volume through treatment
- Short-term effectiveness
- Implementability
- Cost
- Community acceptance
- State acceptance

4.2.1 *Alternative 1*

4.2.1.1 Description

Provides the description of alternative 1.

4.2.1.2 Assessment

Provides the description of the assessment of alternative 1

4.2.2 *Alternative 2*

4.2.2.1 Description

Repeat from above for each alternative developed.

4.2.2.2 Assessment

Repeat from above for each alternative developed.

4.3 Comparative Analyses

Provides a discussion of the relative strengths and weaknesses of the alternatives with respect to each of the evaluation criteria (Tables 6 and 7).

Table 6. Comparison of the Alternatives to the Nine Criteria

Table 7. Summary of the Present Value Costs of the Alternatives

5.0 REFERENCES

Provides a list of the resources used to develop the CMS/FS report.